Implementation of REDD+ in sub-Saharan Africa: state of knowledge, challenges and opportunities[*]

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Appendix

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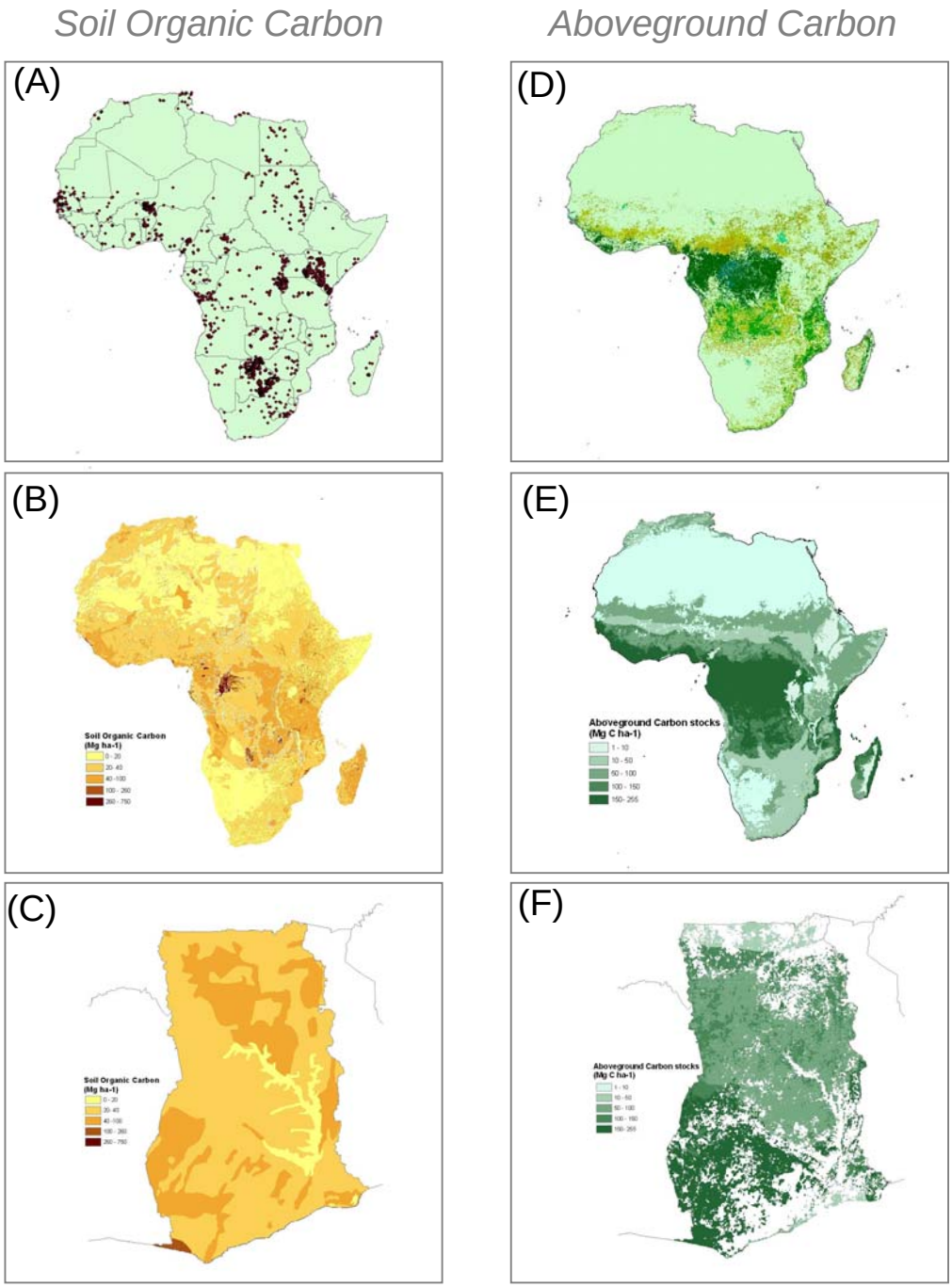

Figure A1. *Assessing C stocks in sub-Saharan Africa*

On the left: assessing soil organic carbon using the ISRIC database and the Harmonized World Soil Database (FAO/IIASA/ISRIC/ISSCAS/JRC, 2008)

On the right: assessing aboveground carbon using the Globcover map and the IPCC and CDIAC default value for C stocks.

(**A**) localization of the soil profiles
(**B**) map of soil organic carbon of Africa
(**C**) map of soil organic carbon of Ghana
(**D**) map of forest from Globcover
(**E**) map of aboveground carbon stocks of Africa
(**F**) map of aboveground carbon stocks of Ghana

Table A1. *Main sensors of different spatial resolution for monitoring forest cover change*

Sensor resolution	Examples of current sensors	Minimum mapping unit (change)	Cost	Utility for monitoring
Coarse (250-1000 m)				
Optical	SPOT-VGT (1998- now), Terra-MODIS, Envisat-MERIS (2004-now)	~100 ha, ~10-20 ha	Low or free	Consistent pan-tropical annual monitoring to identify land clearings and locate hotspots for further analysis with mid resolution
Radar	AVHRR			
Medium (10-60 m)				
Optical	Landsat TM or ETM+, SPOT HM, Terra-Aster, AWiFs LISS II, CBERS HRCCD, DMC	0.5-5 ha	Landsat and CBERS free from 2009, historical: <$0.001/km2, recent data: $0.02-0.5/km2	Primary tool to map deforestation and estimate area change
Radar	ALOS PALSAR, ERS1/2 SAR, JERS-1, ENVISAT-ASAR, RADARSAT 1			
High (<5 m)				
Optical	SPOT HRV, IKONOS, Quickbird, Aerial photos,	< 0.1 ha	High to very high $2-30/km2	Validation of results from coarser resolution analysis, training of algorithms
Radar and laser	Lidar, L-band radar, TerraSAR-X, COSMO-SkyMed, RADARSAT 2			